

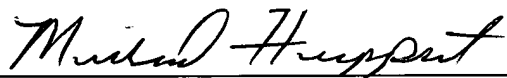
REMARKS

The present Preliminary Amendment is submitted to replace the title; and cancel original claims 1-30 and add new claims 31-59.

Also, the abstract has been amended in order to remove the reference numerals therein. The changes to the abstract are submitted in the form of a substitute abstract. A copy of the abstract with changes marked therein is attached.

Respectfully submitted,

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By 

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ABSTRACT

An antenna apparatus ~~(100-116)~~ includes a minute loop antenna ~~(A3)~~ and at least one antenna element ~~(A1, A2)~~. The minute loop antenna ~~(A3)~~ is provided to be electromagnetically close to a dielectric substrate ~~(10)~~ including a grounding conductor ~~(11)~~, has a predetermined number N of turns and a predetermined minute length, operates as a magnetic ideal dipole when a predetermined metal plate ~~(30)~~ is located closely to the antenna apparatus ~~(100-116)~~, and operates as a current antenna when the metal plate ~~(30)~~ is located apart from the antenna apparatus ~~(100-116)~~. The antenna element ~~(A1, A2)~~ is connected to the minute loop antenna ~~(A3)~~, and operates as a current antenna. In the antenna apparatus ~~(100-116)~~, one end of the antenna apparatus ~~(100-116)~~ is connected to a feeding point ~~(Q)~~, and another end of the antenna apparatus ~~(100-116)~~ is connected to the grounding conductor ~~(11)~~ of the dielectric substrate ~~(10)~~.

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